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A. D. MELVIN, CHIEF OF BUREAU.



THE REGENERATION OF THE  
HORSE

BY

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# THE REGENERATION OF THE MORGAN HORSE.<sup>a</sup>

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## INTRODUCTION.

Of the three types of light horses which American breeders have developed during a century and a quarter, none stands higher in history, judged from the interest and affection which have been devoted to it, none has had a more direct and lasting influence on other types, none, in fact, has been more uniform in type, more prepotent in breeding, or more nearly a fixed breed than the Morgan horse.

With an ancestry which must have been of the highest merit, reared on the limestone and granite hills of New England, imbued with remarkable endurance and stamina by a rigorous but invigorating climate, these little horses seventy-five years ago yielded to none in popularity and held first place in the actual money value placed on individuals and on the service fees of sires. Fifty years ago Morgan stallions were received in the show rings of Kentucky with enthusiasm. Yet during the last twenty years the name of Morgan has been anathema among the horse breeders of Kentucky, the breed has been rarely seen in the show ring at state and national fairs, and the live-stock press and many horsemen of authority have declared the Morgan to be an extinct race.

## CAUSES OF THE DECLINE OF THE MORGAN HORSE.

The causes of this remarkable decline in a breed of horses of outstanding merit are not difficult to discover. Up to the time that the mania for breeding extreme speed in harness horses manifested itself, the qualities of conformation, style, and endurance which the Morgan possessed were generally appreciated, and it was recognized that in the long run those qualities were worth more money than speed records. With the track records of Ethan Allen and Daniel Lambert before them, however, Morgan breeders began to think that the Morgan could be made a race horse, and the speed craze struck them. The decline of the Morgan horse may be dated from this time. It was indeed unfortunate that the old-time Morgan breeders did not follow the advice of Linsley in his book on Morgan

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<sup>a</sup> This circular is based on an address delivered before the Connecticut Valley Breeders' Association at Northampton, Mass., January 25, 1910.

horses, published in 1857.<sup>a</sup> He foresaw with true intuition what would happen if Morgan breeders set up a speed standard. These were his words on this subject:

There are some breeders of Morgan horses who, although they will not breed from animals decidedly inferior in form, merely because they may happen to be fast, are yet inclined to lay too much stress upon great speed—a good quality, but one which we think is often purchased at the expense of qualities even more valuable.

If animals are selected for breeding which can make the best time for a mile, we think the tendency will be to depreciate the value of the breed. Bred for that one purpose, they will lose some of their compactness, become more leggy and “rangy,” and lack the stamina of the true Morgan. The general business qualities of the Morgan are what give him his great value. His admirable traveling gait, and his stoutness, courage, and endurance, are what is wanted for the road. It is not wise, therefore, to attempt to make him the fastest horse in the world, for in doing this we shall be very likely to lose sight of qualities far more important than the ability to trot a mile in 2 minutes 30 seconds.

This is exactly what happened, although even Linsley could hardly have foreseen that the effect would be almost to exterminate the breed.

When the especial value of the Hambletonian and George Wilkes lines for speed production began to be recognized, Morgan breeders resorted to crosses with them, and the Morgan soon became affected by the change in breeding methods. The desire for greater size in the Morgan found its expression in similar and even more violent crosses. As a result we have the Morgan situation of to-day—a few real Morgans fostered by breeders who were loyal to breed standards and who were not carried away by the fashion of the hour, and a very great many which trace to Justin Morgan and are registered as Morgans but are Morgans only in name. Anyone witnessing the Morgan exhibit at the horse show of the Louisiana Purchase Exposition at St. Louis in 1904 could not fail to be impressed with this fact. The real Morgan was there, but he was to a large extent obscured by the great number of ungainly, ill-assorted horses which were in type more Standardbred than anything else, but which, if entered in the Standardbred classes, would have received little attention from the judges.<sup>b</sup>

Following up the unfortunate effects of these violent and ill-judged crosses, it is not surprising that the advocates of other breeds embraced the opportunity to deal the Morgan serious blows whenever the occasion presented itself, nor is it remarkable that, in a short space of time, prejudices arose against the breed, and, as has before been observed, many even came to believe that no such thing as a Morgan existed.

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<sup>a</sup> Linsley, D. C. *Morgan Horses*. Pp. 205-206. New York, 1857.

<sup>b</sup> Twenty-fourth Annual Report, Bureau of Animal Industry, U. S. Department of Agriculture, p. 87.

### THE VALUE OF MORGAN BLOOD.

The great value in which the breed was held fifty and seventy-five years ago need not be pointed out in detail, but a few references may be permitted to show that this value was an actual one and was admitted by horsemen generally before breeders went speed-mad.

One of the editors of the Louisville (Ky.) Journal, who made a tour of the Northern States in 1845, made these statements regarding the Vermont Morgans:

There is no doubt whatever of this—that the breed of the Morgan horse was and is now, in the few instances where it can be found, far the best breed of horses for general use that ever was in the United States—probably the best in the world; and it is remarkable that this breed was, and is now, known by many striking peculiarities, common to nearly every individual.<sup>a</sup>

A quotation from the American Farmers' Encyclopedia, published in 1844 in Philadelphia, runs as follows:

Perhaps the very finest breed of horses in the United States, when general usefulness is taken into consideration, is what is commonly known in the Northern and Eastern States as the Morgan horse.<sup>b</sup>

At the United States Agricultural Society's fair, held at Boston in October, 1855, the following honors were secured by Morgan horses out of a total entry of 423 animals.<sup>c</sup> Three premiums offered for "roadster" stallions all went to horses of Morgan descent. Four premiums were offered for stallions for general use, 4 years old and over, all of which went to Morgans. Two premiums were offered for stallions for general use, 3 years old and under 4, of which one went to a Morgan. Three premiums were offered for stallions for general use, 1 year old and under 2, of which two were awarded to Morgans. Four premiums were offered for "breeding mares and fillies," of which two were won by Morgans. Three premiums were offered for fillies 3 years old, of which a Morgan received one. Only one premium was awarded for yearling fillies, and that went to a Morgan. Four premiums were offered for trotting stallions, three of which went to Morgans.

The exhibition of the Morgan stallion Champion Black Hawk at the Florence, Ky., fair in October, 1855, caused one of the most remarkable incidents ever seen in an American show ring. The blue ribbon for best stallion 4 years old and over had been tied on a dappled-gray horse, when Black Hawk was led into the ring. The crowd immediately began to shout, "Take the ribbon off the gray horse; take it off." Accordingly, the committee did so, and placed the blue ribbon on Black Hawk. Local accounts state that no judgment of the committee was more heartily approved.<sup>d</sup>

<sup>a</sup> Linsley, D. C. Morgan Horses. New York, 1857. P. 83.

<sup>b</sup> Ibid., p. 84.

<sup>c</sup> Ibid., pp. 85, 86.

<sup>d</sup> Ibid., pp. 86, 87.

Hale's Green Mountain was given the highest premium at the Louisville, Ky., fair in 1853 immediately after his arrival from Vermont and after having had a severe ordeal of railroad travel and previous showing,<sup>a</sup> in a day when conditions of travel were more severe than now.

In the present day nothing has done more to focus attention on the value of the Morgan than the record of horses of Morgan type and breeding in our show rings. In Kentucky the descendants of Blood's Black Hawk, Stockbridge Chief, and others are among the most valued horses found, and fully 10 per cent of all horses registered in the first two volumes of the American Saddle Horse Register trace in direct male line to Justin Morgan. Such horses as Drummer Boy, Blaze o'Glory, Glorious Red Cloud, Glorious Whirling Cloud (Don Edwood 27131 A. T. R.), Glorious Thundercloud (Carmon 32917 A. T. R.), and Lord Baltimore are known to carry Morgan blood in their veins, and an examination of the breeding of the carriage horses of American breeding seen in our show rings will almost invariably show Morgan crosses.<sup>b</sup>

Against all the pressure which has been driving the Morgan out of existence, the intrinsic merit of the breed has stood out in sufficient strength to make possible its regeneration if wise and broad-minded policies are adopted.

It is a matter for congratulation that the decline of the Morgan has been checked and that measures are now under way which, if wisely conducted, will in time firmly establish the breed beyond possibility of extinction. Too much credit can hardly be given the men who have preserved the type and the blood, giving us thereby the material from which to develop the modern Morgan.

### THE MORGAN OF HISTORY.

Before discussing the best methods to adopt to restore the Morgan breed and place it on a firm foundation, we should consider briefly some of the salient points in its history, so as to learn, first, what the ancient Morgan type was like, and, second, what of its characteristics are worth preservation as being suitable for modern requirements.

For information concerning the ancient Morgan type there is no authority higher than D. C. Linsley. In an exceedingly painstaking and thorough manner Linsley, over fifty years ago, made a study of Morgan history and pedigrees, which is to this day the standard authority on the history of the breed up to the time of its publication in the year 1857. No one can claim to be an authority on the breed

<sup>a</sup> Linsley, D. C. *Morgan Horses*. New York, 1857. P. 87.

<sup>b</sup> See Twenty-fourth Annual Report, Bureau of Animal Industry, U. S. Department of Agriculture.

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without having mastered Linsley's volume; and without Linsley as the pioneer, Battell's great work would have been well-nigh impossible of achievement. Linsley's "Morgan Horses" is, indeed, "the Morgan Bible." Therefore it is largely to its pages that we turn to learn the characteristics of the Morgan of the early day.

#### THE JUSTIN MORGAN HORSE.

Linsley's description of the original Justin Morgan is extremely important in view of the fact that many persons believe that the regeneration of the Morgan breed at this time should have as its basic motive the restoration of the ancient Morgan type, which means, on final analysis, that the ultimate aim of the movement is to make all Morgan horses conform as nearly as possible to the type of the original Justin Morgan.

The following somewhat lengthy quotation is taken from Linsley's chapter on "Memoir and Description of the Justin Morgan:"<sup>a</sup>

The original, or Justin Morgan, was about 14 hands high and weighed about 950 pounds. His color was dark bay, with black legs, mane, and tail. He had no white hairs on him. His mane and tail were coarse and heavy, but not so massive as has been sometimes described; the hair of both was straight and not inclined to curl. His head was good, not extremely small, but lean and bony, the face straight, forehead broad, ears small and very fine, but set rather wide apart. His eyes were medium size, very dark and prominent, with a spirited but pleasant expression, and showed no white around the edge of the lid. His nostrils were very large, the muzzle small, and the lips close and firm. His back and legs were perhaps his most noticeable points. The former was very short; the shoulder blades and hip bones being very long and oblique, and the loins exceedingly broad and muscular. His body was rather long, round and deep, close ribbed up; chest deep and wide, with the breastbone projecting a good deal in front. His legs were short, close jointed, thin, but very wide, hard and free from meat, with muscles that were remarkably large for a horse of his size, and this superabundance of muscle exhibited itself at every step. His hair was short, and at almost all seasons soft and glossy. He had a little long hair about the fetlocks, and for 2 or 3 inches above the fetlock on the back side of the legs; the rest of the limbs were entirely free from it. His feet were small but well shaped, and he was in every respect perfectly sound and free from any sort of blemish. He was a very fast walker. In trotting his gait was low and smooth and his step short and nervous. He was not what in these days would be called fast, and we think it doubtful whether he could trot a mile much, if any, within four minutes, though it is claimed by many that he could trot it in three.

Although he raised his feet but little, he never stumbled. His proud, bold, and fearless style of movement and his vigorous, untiring action have, perhaps, never been surpassed. When a rider was on him he was obedient to the slightest motion of the rein; would walk backwards rapidly under a gentle pressure of the bit and moved sideways almost as willingly as he moved forward; in short, was perfectly trained to all the paces and evolutions of a parade horse; and when ridden at military reviews (as was frequently the case), his bold, imposing style and spirited, nervous action attracted universal attention and admiration. He was perfectly gentle and kind to handle and loved to be groomed and caressed, but he disliked to have children about

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<sup>a</sup> Linsley, D. C. *Morgan Horses*. New York, 1857. Pp. 131-143.



him and had an inveterate hatred for dogs—if loose, always chasing them out of sight the instant he saw them.

When taken out with halter or bridle he was in constant motion and very playful. He was a fleet runner at short distances. \* \* \*

Among many races of this description that he ran were two, in 1796, at Brookfield, Vt., one with a horse called Sweepstakes, from Long Island, and the other with a horse called Silver Tail, from St. Lawrence County, N. Y. Both of these he beat with ease. Mr. Morgan (who then owned him) offered to give the owner of Silver Tail two more chances to win the stake, which was \$50, by walking or trotting the horses for it, which was declined. \* \* \*

In harness the Justin Morgan was quiet but full of spirit, an eager and nimble traveler but patient in bad spots; and although for a long time steadily engaged in

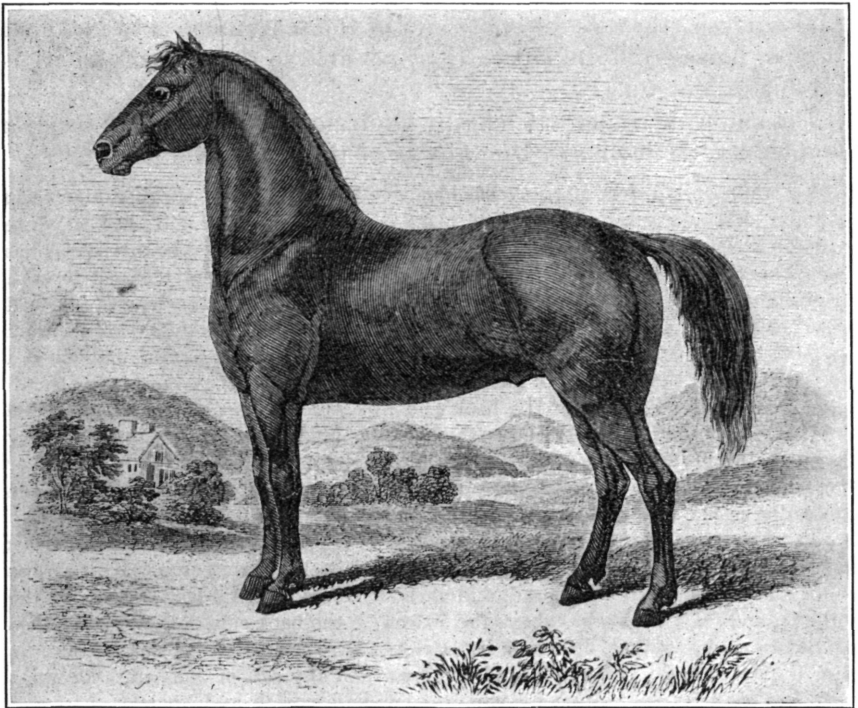


FIG. 1.—The original Justin Morgan. (From Linsley's "Morgan Horses.")

the heavy work of a new farm, his owner at that time informs us that he never knew him refuse to draw as often as he was required to, but, he pithily adds: "I didn't very often have to ask him but once, for whatever he was hitched to generally had to come the first time trying." This uniform kindness at a pull was one of the striking characteristics of the horse, and the same trait may be observed in the greater part of his descendants. "Pulling matches" and "pulling bees" were as common in those days as short races, and the "little horse," as he was often called, became quite celebrated for his unvarying willingness to do his best and for his great power at what is called a "dead lift." \* \* \*

The quietness and exceedingly pleasant temper of the Justin Morgan is strikingly evidenced by the fact that he was often ridden and driven by ladies. A lady of St.

Johnsbury once told us she remembered his appearance perfectly and had repeatedly ridden him, when a girl, to balls and other parties, and spoke with much enthusiasm of his noble appearance, his high spirit, and perfect docility.

It is exceedingly difficult to obtain accurate information respecting the changes in owners that occurred to the horse at different times. To account for this uncertainty, we must consider that his fame has been almost entirely posthumous; that although the champion of his neighborhood, he was little valued on account of his small size; and it was not until after his death and his descendants were exhibiting the powers of their sire, in speed, strength, and endurance in almost every village in eastern Vermont, that people began to realize they had not properly appreciated him. \* \* \*

At 29 years of age, no cause need be assigned for his death but the ravages of time and the usual infirmities of years; but old age was not the immediate cause of his death. He was not stabled, but was running loose in an open yard with other horses, and received a kick from one of them in the flank; exposed without shelter to the inclemency of a northern winter, inflammation set in and he died. Before receiving the hurt which caused his death he was perfectly sound and entirely free from any description of blemish. His limbs were perfectly smooth, clean, free from any swelling, and perfectly limber and supple. Those persons who saw him in 1819 and 1820 describe his appearance as remarkably fresh and youthful. Age had not quenched his spirit nor damped the ardor of his temper; years of severest labor had not sapped his vigor nor broken his constitution; his eye was still bright and his step firm and elastic.

Justin Morgan's good qualities were transmitted not only to his sons but to their sons and grandsons to such a degree that where proper matings were made, according to the type, Linsley found young colts that closely resembled him "in all respects except size, in which there has been a decided increase."<sup>a</sup>

The horse possessed that essential qualification of a great sire—impressiveness. His blood "bred on," destined to found a family and a breed. Such a sire was Hambletonian, such was George Wilkes, such were Denmark and the Darley Arabian.

#### THE MORGAN OF LINSLEY'S DAY.

The Morgan horse of Linsley's time was far more common than the Morgan of to-day, although the breed was even then beginning to be affected by the tendencies which in a comparatively short time threatened it with extinction. The small size of the original Morgan was undoubtedly objectionable, but, in Linsley's opinion, it was being improved in his time. He gives the height of six grandsons of Justin Morgan as ranging from 13.3 to 15 hands, with weights varying from 1,000 to 1,075 pounds, and states that 22 Morgan stallions exhibited at the United States Agricultural Society's show held in Boston in October, 1855, averaged 1,040 pounds in weight. This Linsley regards as a fair average of the Morgans of his time and as proof that the size of the breed had been increased.<sup>b</sup>

<sup>a</sup> Linsley, D. C. *Morgan Horses*. New York, 1857. P. 146. <sup>b</sup> *Ibid.*, pp. 179, 180.  
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A further quotation from Linsley on the size of Morgans fifty years ago is both important and interesting.<sup>a</sup>

The average height of Morgan horses may be stated at from 14 to 15½ hands. There are a few that will fall below 14 hands, but the number is very small, and there are also some that will exceed 15½ hands, but it is by no means common, and in such cases it will generally be found that the animal has but a small amount of Morgan blood. Their weight may be stated to range from 900 to 1,100 pounds, the usual weight being about 1,000; any great deviation from this weight should induce the suspicion of a large infusion of other blood, although exceptions may and doubtless do occur, in the case of animals that can show a good pedigree; still they must be considered as the exception to the rule, and not the rule itself.

#### BEST METHODS TO REVIVE THE BREED.

In view of the widespread belief that the Morgan breed should be revived and made once more an important factor in the horse industry, it is not surprising that opinions differ as to the best methods to adopt for this purpose. There is little if any question that the revival of the breed can be accomplished; enough material of the type, fixed by inheritance, is available for this. The question seems to be whether an exact revival of the ancient Justin Morgan type should be attempted, or whether we should take the best of the ancient type, improve it, and make it conform as closely as possible to modern requirements.

#### SHOULD THE JUSTIN MORGAN TYPE BE ADOPTED?

Let us consider again the qualities which made Justin Morgan and his sons famous. A further reference to Linsley shows that the qualities of Justin Morgan which he regarded as worth preserving are largely the qualities that make the Morgan valuable to-day, and the faults which the horse had would be regarded as faults to-day when found in Morgans. "His compactness of form, his high and generous spirit, combined with the most perfect tractability; his bony, sinewy limbs, his lofty style, and easy but vigorous action"<sup>b</sup> are all points of value. Every one of these is admitted by horsemen as fundamental, with the possible exception of the action, on which there is a difference of opinion, some breeders wanting the highest and most brilliant action possible and others simply "easy but vigorous action." Justin Morgan's prepotency as a sire was an asset of the highest value; that also is universally regarded as fundamental in a sire.

The qualities generalized above are, in the writer's opinion, the qualities of Justin Morgan which should be perpetuated in the modern Morgan, with the single exception that the writer confesses to a desire for higher and more brilliant *natural* action than had the original

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<sup>a</sup> Linsley, D. C. Morgan Horses. New York, 1857. Pp. 70, 71. <sup>b</sup> Ibid., p. 146.  
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Morgan. Linsley asserts that although Justin Morgan raised his feet but little, he never stumbled;<sup>a</sup> nevertheless he recognizes the fact that a horse that was very low in action was likely to stumble, and remarks upon the sure-footedness of the original Justin Morgan in spite of this handicap. This sure-footedness is a present Morgan characteristic, but one can not be certain that the sure-footedness will always be present when handicapped by very low action.

Justin Morgan "had a little long hair about the fetlocks and for 2 or 3 inches above the fetlocks on the back side of the legs."<sup>b</sup> Linsley congratulates the Morgan breeders of his time that "the present Morgans have not so much of the long hair of the Justin Morgan on their legs. This is an improvement, as the long hair on the legs is unsightly, inconvenient, and in no sense useful."<sup>c</sup> One still sees this peculiarity occasionally, but no case comes to mind where a Morgan which has it is more highly valued on that account, even by the most enthusiastic advocates of the "ancient" type.

Linsley also explains the greater size of Morgan mares in districts remote from market as due to the fact that buyers had not reached such localities to purchase the larger mares. He deplores the fact that farmers allowed themselves to be tempted by high offers to sell the largest mares.<sup>d</sup>

That we should adopt the original "ancient" Morgan type in its entirety seems little short of folly. Linsley himself admitted that Justin Morgan possessed faults; he was too good a horseman to imagine that such a thing as an absolutely perfect horse ever existed, and he warned breeders not only to avoid breed faults, but by intelligent breeding to improve and add to the breed's good qualities.

#### THE IMPROVED TYPE MUST CONFORM TO MARKET REQUIREMENTS.

The writer has no intention of drawing a ridiculous picture of the original Morgan horse. He merely desires to point out the mistake which would occur if well-meaning people succeed in perpetuating manifest faults. Justin Morgan's good qualities far outweighed his poor ones, yet it is doubtful if a competent judge would consider him in a modern show ring. His small size, the hair on the fetlocks, and his low action would be regarded as objectionable by any fair-minded critic. It is no discredit to the horse to say this. He belonged to his time and he filled his niche. It was by his prepotency, his influence as a sire, that he created a place in horse husbandry. But if Justin Morgan were reincarnated to-day he could not fill this place. In short, the blood of the horse, as shown in his descendants, is greater than the horse himself, and the story of

<sup>a</sup> Linsley, D. C. *Morgan Horses*. New York, 1857. P. 132. <sup>c</sup> *Ibid.*, p. 181.

<sup>b</sup> *Ibid.*, p. 132.

<sup>d</sup> *Ibid.*, p. 208.

Justin Morgan is a repetition of that of almost every other great sire known to the breeders of live stock.

Let us illustrate this point in the history of another breed. The Percherons of fifty years or more ago were mainly quick-moving, light-draft horses, known in France as "diligence" horses, and were largely used to draw stage and mail coaches. Indeed, the earliest American writer on the Percheron horse used them to draw heavy carriages.<sup>a</sup> DuHaÿs himself advocated keeping pure the three types of the original Percheron horse—the light-draft type, the heavy-draft type, and the intermediate type.<sup>b</sup> Yet what consideration would be shown a light-draft Percheron, or even one of the intermediate type, in our modern show rings? The improvement of the breed has carried its standard as a draft horse far beyond that of its progenitors. Yet who may deny the debt the breed owes to the good qualities of those progenitors?

Again, the forebears of our modern Hereford cattle were huge animals, often gray-faced and speckled-faced, with a very heavy forehand and light hindquarters, but they were wonderful grazers. The type was one which would cause laughter if seen in a modern show ring, but who doubts that the remarkable vitality and good grazing qualities of the modern American Hereford are due to inheritance from the now obsolete type from which it descended?

It is so in breeding live stock of any kind. Improvement must be made, or the breed dies out. Breeders must set for their ideals higher standards than those of the past or even of the present, or retrogression is inevitable. Linsley held similar views and counseled breeders to improve their Morgans. At the time he wrote he says that "it can hardly be questioned that a general improvement has been steadily going on in the character of our horses."<sup>c</sup>

Improvement should be carried out, however, in such a manner that the good qualities may be retained and the undesirable ones eliminated. To adopt size in Morgans as the one great thing to be obtained would be as unwise as to adopt the exact type of Justin Morgan or to set up extreme speed as the sole standard. Linsley, referring to this subject, recommends that the Morgan be brought up to the standard of size which he set forth (14 to 15.2 hands, weighing from 900 to 1,100 pounds), but not at the sacrifice of any of the valuable qualities already present.<sup>d</sup>

The improved type of the Morgan horse must be based on standard market requirements for horses known in our show rings by the

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<sup>a</sup> W. T. Walters, of Baltimore, who translated Charles DuHaÿs's work on "The Percheron Horse" for the Orange Judd Company in 1867.

<sup>b</sup> See Walter's translation.

<sup>c</sup> Linsley, D. C., *Morgan Horses*, p. 182.

<sup>d</sup> *Ibid.*, p. 214.

somewhat misleading term of "heavy-harness horses." This does not mean a draft horse, as many think, but may be roughly defined as a horse which wears the heavy harness used in drawing a gig, phaeton, victoria, or similar vehicle, as distinguished from the light harness with breast strap collar used in drawing a road wagon. The type is a horse of stylish carriage, good length of neck, sloping shoulders, high withers, short, close-coupled back, full hips and quarters, high set, smartly carried tail, and round, compact conformation, with an abundance of quality and finish and as much natural action, endurance, and speed as possible; the action at the walk should be rapid, straight, and true, and nothing but pure trotting action should be tolerated, without the least tendency to pace. The Morgan should not under any circumstances be made a race horse; that experiment was tried once, and should now be considered an almost disastrous failure and the incident closed; but the endurance of the Morgan and his ability to stand driving for long distances at a smart pace are highly desirable qualities and should be preserved. It is doubtful if the Morgan will ever be a producer of brougham horses, except by crossing.

#### BREEDING METHODS.

The methods of breeding used to bring about the regeneration of the Morgan type will need to be very carefully followed with regard to an increase of size. In the Department's work at the Morgan Horse Farm, Middlebury, Vt., the brood mares average 15.0 $\frac{1}{4}$  hands in height and 1,050 pounds in weight. General Gates, the leading stallion, stands 14.2 $\frac{1}{4}$  <sup>a</sup> hands and weighs 1,000 pounds in breeding condition; his 4-year-old son, Red Oak, out of a large mare of excellent Morgan breeding, stands 15.0 $\frac{1}{4}$  hands and weighs 1,000 pounds.

At this time it would appear safest to advise the selection of horses of Morgan breeding which show the closest conformity to the type, and to rely on selection to increase the size. The Department has tried the experiment of crossing General Gates on mares of Kentucky breeding whose dams were strong in Morgan blood. Thus far the results have been highly satisfactory, but the experiment has not progressed far enough to enable us to advise breeders to make such crosses. As a rule, the average breeder can not afford to experiment with out-crosses.

*Blood lines must mean type-producing lines.*—The safest standard for a breeder to adopt is to confine his operations as far as possible to Morgan blood lines, rigidly eliminating every animal which is not of Morgan type, or which is unsound, or shows the slightest

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<sup>a</sup> Erroneously reported as 15 hands in Twenty-fourth Annual Report, Bureau of Animal Industry, U. S. Department of Agriculture.

tendency to pace. Blood lines can not yet be drawn hard and fast in Morgan breeding. We must select type first of all, and by so selecting we will with each succeeding mating intensify the type and improve the pedigree. If the Morgan horse is to be regenerated, horses must be bred, not pedigrees. To breed horses which are in themselves good requires a comprehensive knowledge of horses and much more than average ability as a breeder; almost anyone can breed horses of good pedigree if he has the money to buy his founda-

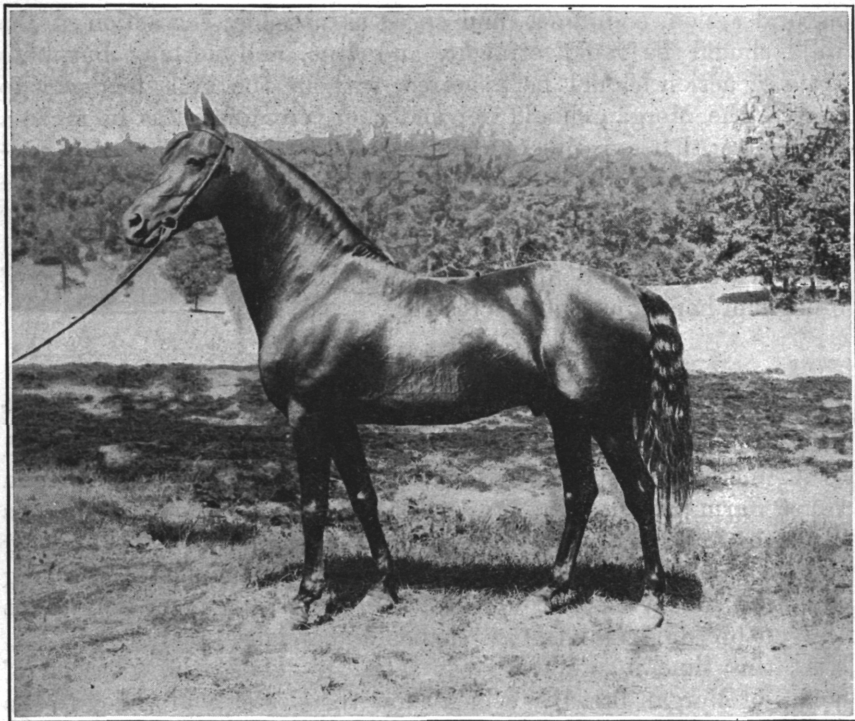


FIG. 2.—A modern Morgan. Stallion General Gates (666) at the head of the stud, United States Morgan Horse Farm, Middlebury, Vt.

tion animals. The test of the worth of a pedigree is the animal it produces. It follows, therefore, that a consideration of pedigree by a judge in the show ring is a *reductio ad absurdum*.

Approved:

JAMES WILSON,  
*Secretary of Agriculture.*

WASHINGTON, D. C., June 17, 1910.

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